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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,236	09/15/2003	Eric J. Larsen	SONYP029	3753

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EXAMINER
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OMOTOSHO, EMMANUEL

ART UNIT	PAPER NUMBER
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3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/663,236

Applicant(s)

LARSEN ET AL.

Examiner

Emmanuel Omotosho

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-58 are rejected under 35 U.S.C. 102(e) as being anticipated by Kang U.S. Patent 6,009,210.

3. Kang discloses a method for processing interactive user control with a scene of a video clip comprising:

4. In regards to claims 1,14,22,25,28,34,35,39,43,46,47,52,53,57

a. Identifying a head of a user that is to interact with the scene of the video clip (Col 1 lines 43-47 and Col 3 lines 29-32)

b. Storing an initial frame of image data representing the head of the user (Col 3 lines 29-35)

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- c. Tracking the identified head of the user during display of the video clip, the tracking enabling detection of a change in position of the head of the user  
(Abstract)
  - d. Tracking including identifying a search region within a frame of the video clip and comparing values within the search region to template values of the initial frame of the stored image data; adjusting a view frustum (which is being interpreted as the "view of the user into the virtual world") in accordance with the change in position of the head of the user (Col 2 lines 34-43 and Col 3 lines 4-21)
  - e. Repeating the identifying the search region, the comparing, and adjusting for successive frames of the video clip, wherein the comparing is performed with the initial frame of the stored image data (Col 2 lines 34-43 and Col 9 lines 17-44)
  - f. A computing device and a display screen in communication with the computing device configured to display image data defined through a view-frustum (Fig 1)
  - g. Tracking device is a camera (Fig 1)
5. In regards to claims 2,15,53, a view frustum initially defined by a triangular gaze projection set between outer edges of a virtual window and a virtual position of the head when the virtual position of the head is normal to a center point of the virtual window  
(Figs 1-3)

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6. In regards to claim 3,16,23-24,53 adjusting the view-frustum moves the virtual position of the head away from normal relative to the center point of the virtual window (Col 2 lines 34-43)
7. In regards to claim 4,17, virtual position of the head being away from normal relative to the center point of the virtual window changes an angle of the triangular gaze projection, the change in angle of the triangular gaze projection displays a change in viewing angle of the scene provided by the video clip (Col 4 line 60- Col 5 line 49)
8. In regards to claim 5, the change in viewing angle of the scene is a result of the detected movement of the head of the user to enable the interaction with the scene (Col 4 line 60- Col 5 line 49)
9. In regards to claim 6,23, successive frames are compared to determine a relative distance of the head of the user to manipulate a scale of the scene being presented (Col 3 lines 60 – 67 and Col 4 lines 60 – 67)
10. In regards to claim 7,26-27,29,31,41,42,49,50, a capture device having depth capturing capability determines a relative distance of the head of the user to manipulate a scale of the scene being presented (Col 4 lines 60 – 67, Col 5 lines 51-57 and Col 6 lines 46-52)
11. In regards to claim 8,30, the initial frame of image data is marker-less (Fig 1)
12. In regards to claim 9, the initial frame of data is maintained throughout the video clip (Fig 1)
13. In regards to claim 10,48,54 the video clip is of a video game. Although Kang discloses the method to be generally associated with virtual environment in computer

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systems, Kang further discloses that video games are well known in the art as virtual environment in a computer system (Col 1 lines 26-40)

14. In regards to claim 11, the interaction with the scene by tracking movement of the head of the user is independent of user hand-held controls for interacting with the video game (Col 1 lines 5-9)

15. In regards to claim 12,32,40,55, the method operation of tracking the identified head of the user during display of the video clip includes tracking a facial portion of the head and matching gray scale image data associated with the facial portion to image associated with a template of the facial portion (Col 9 lines 20-33)

16. In regards to claim 13,18-20,24,26,33,35,41,42,44,50,56, the method of adjusting a view frustum in accordance with the change in position of the head of the user includes identifying a point of interest of the scene of the video clip and modifying the view-frustum so that the point of interest appears at a constant position when displayed in successive video clips (Kang Claim 6). The Examiner should point out that each frame in Kang's disclosure has to be scanned before the scene transformation could occur.

17. In regards to claim 21,36-38,45,49-51,58, the method operation of translating a view frustum in accordance with the change in position of the head of the user includes rotating the view-frustum about the head of a user according to the change in position of the head of the user (Kang Claim 5)

***Response to Arguments***

18. Applicant's arguments filed 2/6/07 with respect to claims 1-58 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Omotosho whose telephone number is (571) 272-3106. The examiner can normally be reached on m-f 8-430.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EO

*Ronald Jensen*  
Primary Examiner  
3/5/07